

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



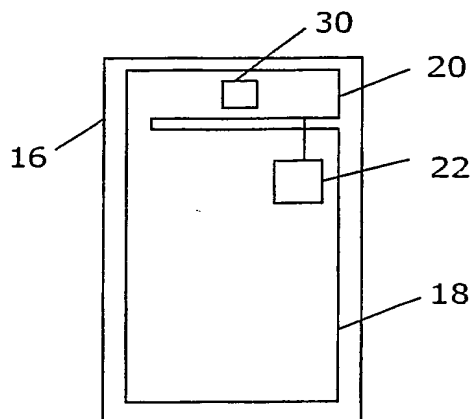
(43) International Publication Date
24 February 2005 (24.02.2005)

PCT

(10) International Publication Number
WO 2005/018044 A1

- (51) International Patent Classification⁷: **H01Q 1/24**, 1/52, 21/28, 1/38
- (21) International Application Number:
PCT/EP2004/008891
- (22) International Filing Date: 9 August 2004 (09.08.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
03077636.3 18 August 2003 (18.08.2003) EP
60/497,638 25 August 2003 (25.08.2003) US
- (71) Applicant (for all designated States except US): **SONY ERICSSON MOBILE COMMUNICATIONS AB** [SE/SE]; S-221 88 Lund (SE).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **LINDELL, Bo** [SE/SE]; Mjölmarstigen 4, S-181 46 Lidingö (SE).
- (74) Agent: **DAHNÉR, Christer**; Ström & Gulliksson IP AB, P.O. Box 7086, S-103 87 Stockholm (SE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Declaration under Rule 4.17:**
— of inventorship (Rule 4.17(iv)) for US only
- Published:**
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PLACING OF COMPONENTS ON AN ANTENNA ARRANGEMENT



(57) Abstract: The present invention relates to a portable communication device comprising a radio circuit (22) for feeding antenna elements, at least one component (30) which is mildly sensitive to external radio transmission, and an antenna arrangement for sending and receiving radio traffic. The antenna arrangement comprises a first antenna element (18) located within and extending through a major portion of the device, and a second smaller antenna element (20) connected to the first antenna element. The radio circuit is connected between the two antenna elements and said component is provided on a section of the antenna arrangement making small contributions to the antenna currents in the antenna arrangement.

WO 2005/018044 A1